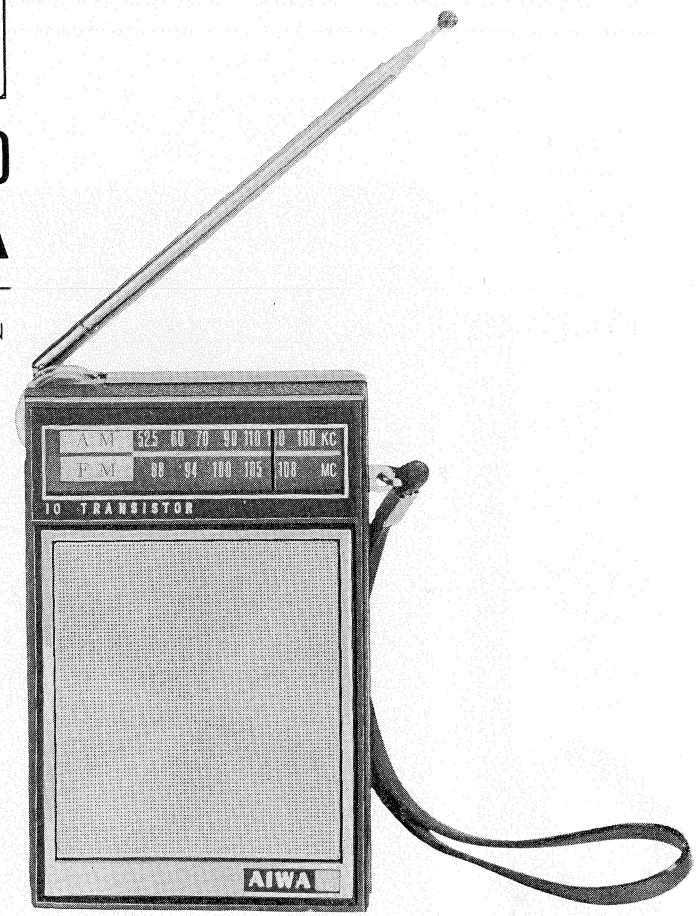
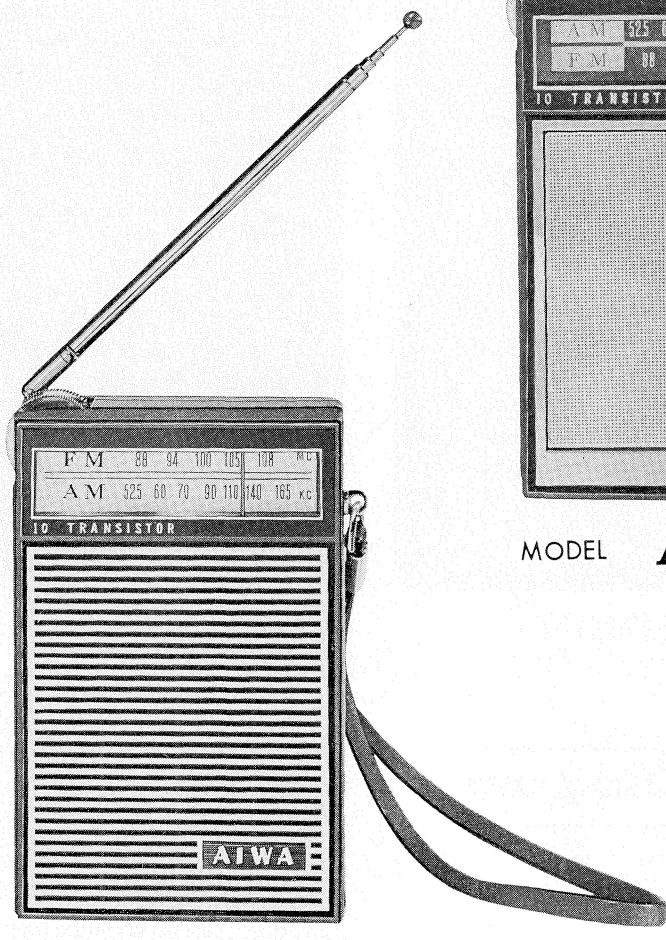
AIWA

10 TRANSISTOR RADIO
SERVICE DATA

AIWA CO., LTD. TOKYO, JAPAN



MODEL **AR-132**

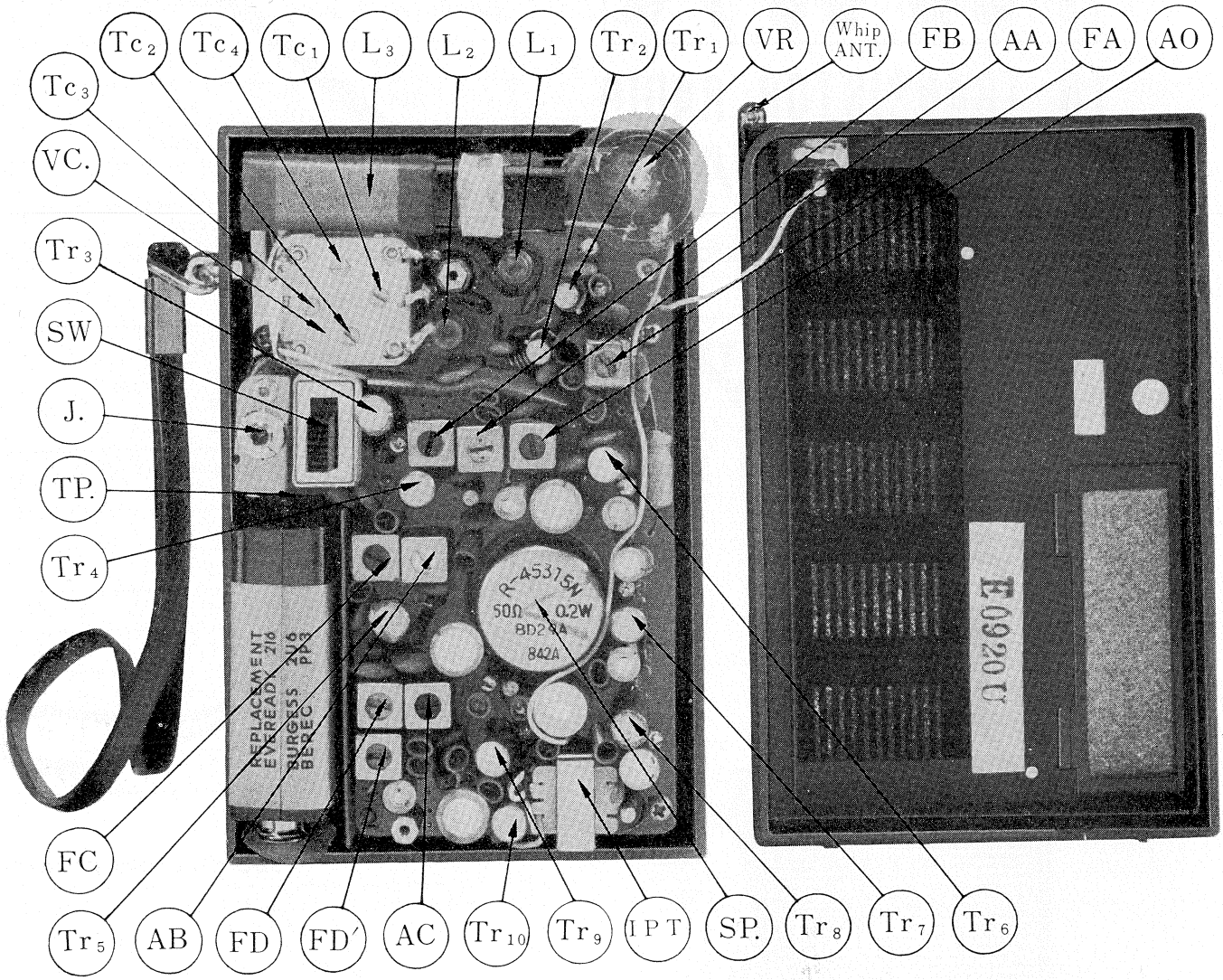


MODEL **AR-125**

SPECIFICATIONS

Circuit:	10 transistors 3 diodes
Frequency range:	AM 525～1,650KC FM 88～108MC
Output:	Maximum 250mW Undistorted 180mW
Speaker:	$1\frac{3}{4}$"×3" 50Ω
Antenna:	6 section whip antenna for FM Ferrite bar antenna for AM
Battery:	EVEREADY No. 216 JIS 006p 9V
Earphone:	Magnetic earphone 50Ω
Dimensions:	3"×$4\frac{1}{2}$"×$1\frac{5}{16}$
Weight:	$\frac{1}{2}$ lb.

Transistors and Major Components Locations



Schematic Circuit Diagram

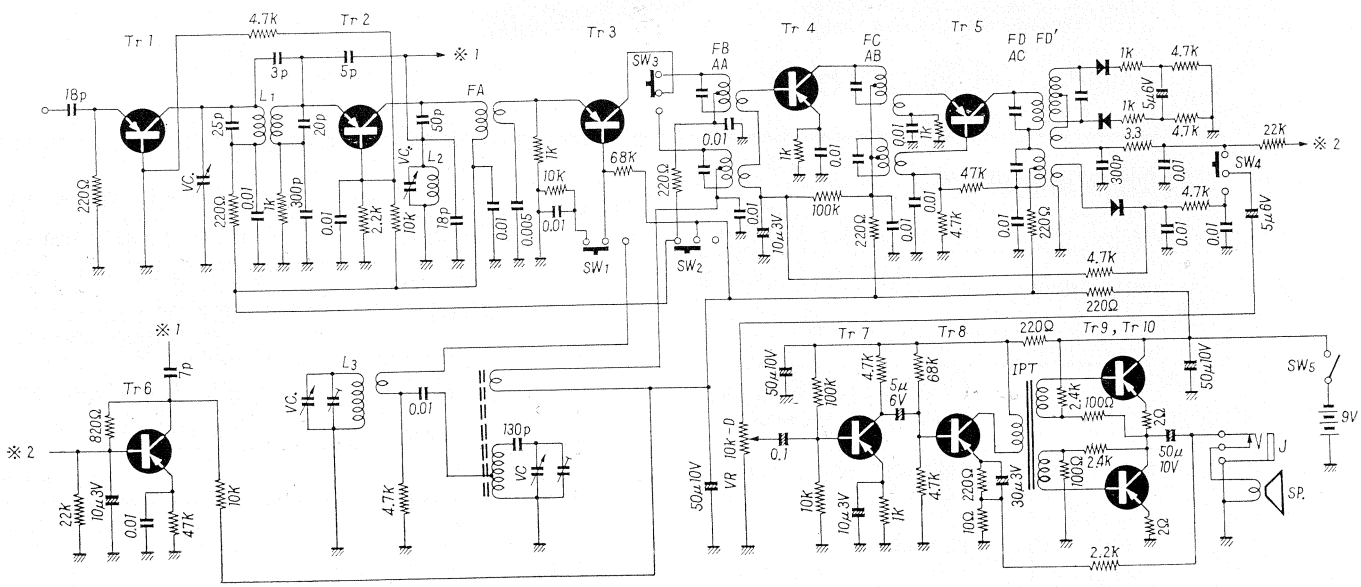


Fig. 1

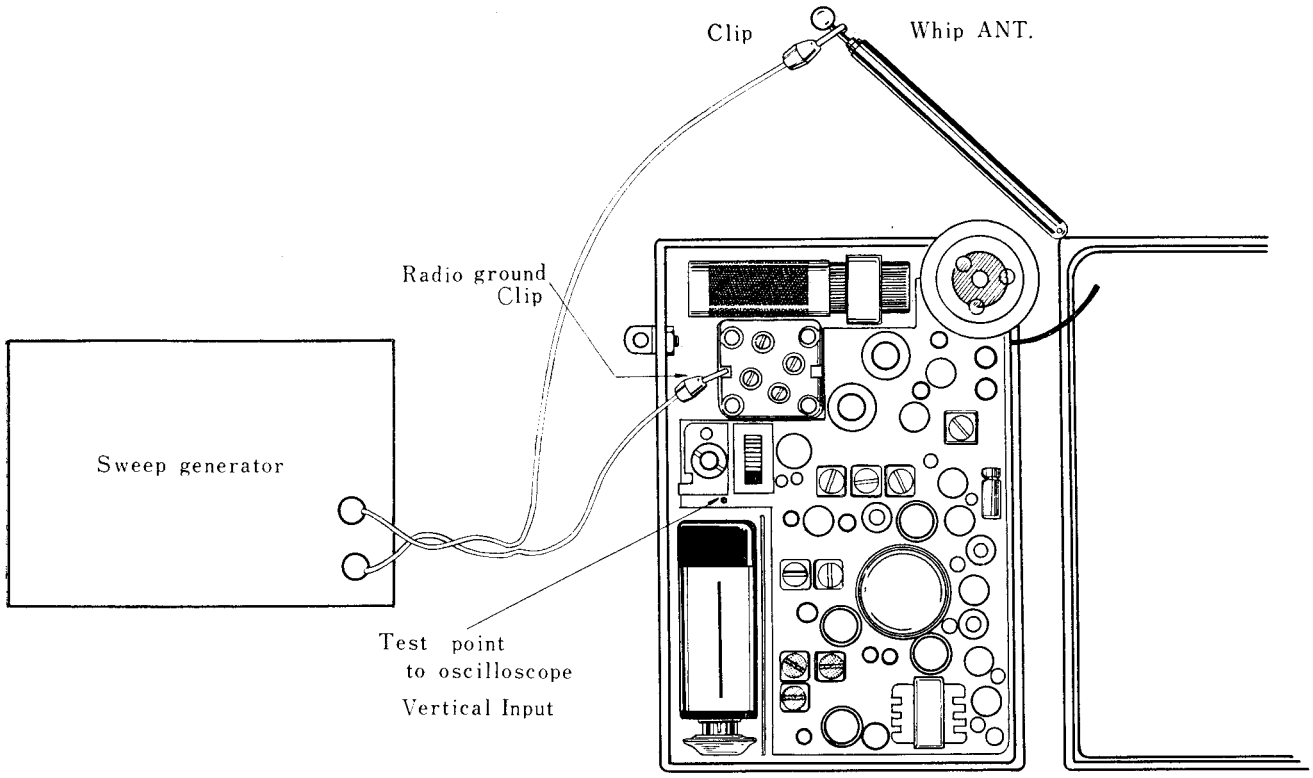
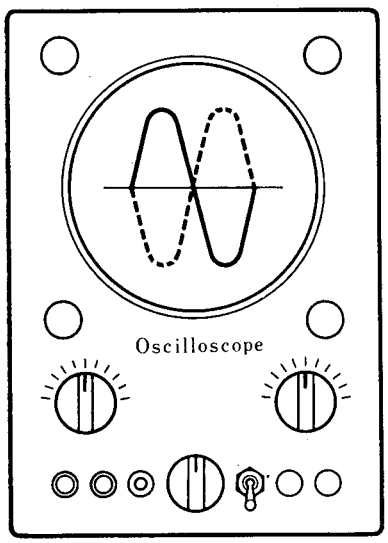


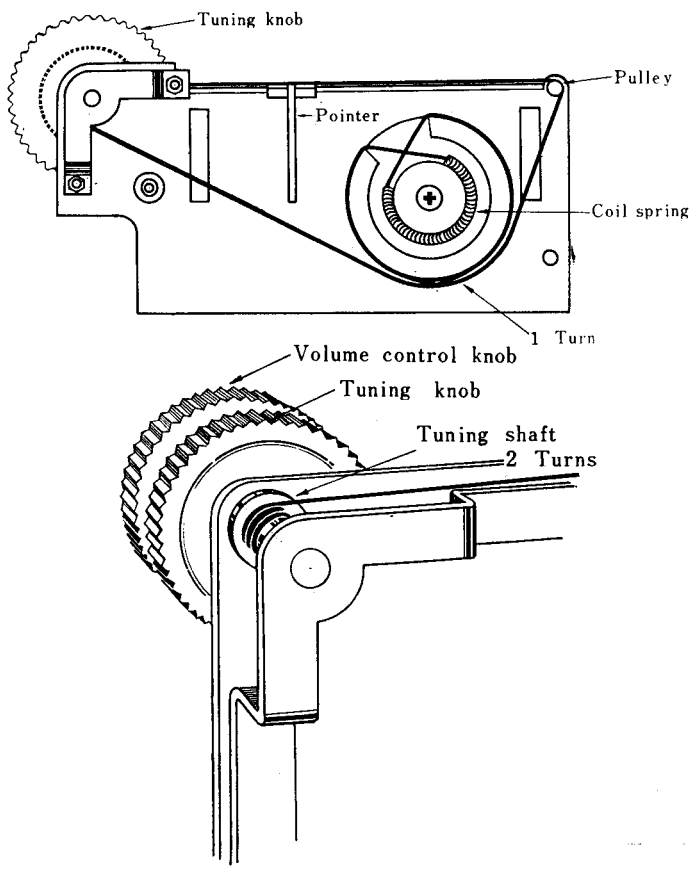
Fig. 2

A or B
"S" curve maximum and
to be symmetry



↑ ↑
V. input
From Volume control lug
No. 1 & 3 of the Radio

Tuning Drive Cord



ALIGNMENT INSTRUCTIONS (AM)

* Volume control should be at maximum.
* Output meter should be connected across the voice coil of speaker.

Step	Signal Generator Coupling	Band Switch Setting	Signal Generator Frequency	Radio Dial Setting	Adjust for Max. Output
1	Loop	AM	455 Kc	VC.max.	AA. AB. AC. (AM.IFT)
2	Loop	AM	515 Kc	VC.max.	AO. (AM OSC. Coil)
3	Loop	AM	1,700 Kc	VC.min.	TC_3 trimmer
4	Repeat step 2 & 3				
5	Loop	AM	600 Kc	600 Kc	L_3 (AM ANT. Coil)
6	Loop	AM	1,400 Kc	1,400 Kc	TC_4 trimmer
7	Repeat step 5 & 6				

ALIGNMENT INSTRUCTIONS (FM)

* Volume control should be at minimum.
* Oscilloscope should be connected across lug No. 1 & 3 of Volume control.

Step	Sweep Generator Coupling	Band Switch Setting	Sweep Generator Frequency	Radio Dial Setting	Adjust for "S" curve max. (Fig. 2)
1	Fig. 1	FM	10.7 Mc	VC.max.	FA. FB. FC. FD. FD'(FM.IFT)
2	Fig. 1	FM	86.5 Mc	VC.max.	L_2 (FM OSC. Coil)
3	Fig. 1	FM	109 Mc	VC.min.	TC_2 trimmer
4	Fig. 1	Repeat step 2 & 3			
5	Fig. 1	FM	88 Mc	88 Mc	L_1 (FM ANT. Coil)
6	Fig. 1	FM	105 Mc	105 Mc	TC_1 trimmer
Repeat step 5 & 6					

PARTS LIST

TRANSISTOR & DIODE

Symbol No.	Original Type	Description
Tr 1	2SA 240	FM RF. Amplifier
Tr 2	2SA 239	FM Converter
Tr 3	2SA 433	AM local oscillator & FM IF. Amp.
Tr 4	2SA 433	AM/FM IF. Amp.
Tr 5	2SA 433	FM & AM IF. Amp.
Tr 6	2SB 54	AFC Amp.
Tr 7	2SB 54	Audio Amplifier
Tr 8	2SB 54	Audio Driver
Tr 9	2SB 56	Audio Output
Tr 10	2SB 56	Audio Output
D 1	IN 60	Ratio Detector FM
D 2	IN 60	Ratio Detector FM
D 3	IN 60	Detector (AM)

VARIABLE CAPACITOR

Symbol No.	Parts No.	Description
VC	R−45302	Tuning

VOLUME CONTROL

Symbol No.	Parts No.	Description
VR	R−45307	Volume control

SPEAKER

Symbol No.	Parts No.	Type		
		Size	Field	V.C.IMP.
SP.	R−45315	1¼"×3"	P.D.	50Ω

COIL

Symbol No.	Parts No.	Description
L 1	R−45317	FM ANT. Coil
L 2	R−45318	FM OSC. Coil
L 3	R−45334	AM ANT. Coil

TRANSFORMER

Symbol No.	Parts No.	Description
AA	R−45310	AM IFT (A)
AB	R−45311	AM IFT (B)
AC	R−45312	AM IFT (C)
FA	R−45306	FM IFT (A)
FB FC	R−45307	FM IFT (B)
FD	R−45308	FM IFT (C)
FD'	R−45309	FM IFT (D) Ratio T.
I.P.T.	R−45316	Input Trans.

SWITCH

Symbol No.	Parts No.	Description
S W	R−45313	Band Switch

WHIP ANTENNA

Symbol No.	Parts No.	Description
Whip ANT.	R−45010	Whip Antenna

CABINET ASSEMBLY

Symbol No.	Parts No.	Description
Cabinet	R−45001A	Cabinet Ass'y
Tun. Knob	R−45005	Tuning knob
VR. Knob	R−34006	Volume control knob
Back Cover	R−45002	Back panel
Dial Scale	R−45007	Dial Scale
Pointer	R−45106	Pointer

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